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LEVEL:CHO 300L

COURSE TITLE: COMMUNICABLE DISEASE

Assignment.

Question 1) Discuss Communicable disease under the following:

1. Communicable Diseases

Definition

Communicable diseases are illnesses caused by infectious agents (bacteria, viruses, parasites, fungi) that can be transmitted from one person to another, either directly or indirectly.

Causative Agents

- Bacteria (e.g., *Mycobacterium tuberculosis*, *Vibrio cholerae*)
- Viruses (e.g., HIV, Influenza virus)
- Parasites (e.g., *Plasmodium falciparum*, *Schistosoma mansoni*)
- Fungi (e.g., *Trichophyton* spp.)

Modes of Transmission

- ***Direct Transmission*:**
 - Person-to-person contact (e.g., HIV, STIs)
 - Droplet transmission (e.g., Influenza, Tuberculosis)
- ***Indirect Transmission*:**
 - Contaminated food/water (e.g., Cholera, Typhoid)
 - Vectors (e.g., Mosquitoes, Ticks)
 - Fomites (e.g., contaminated surfaces)

Methods of Prevention and Control

- Vaccination
- Sanitation and hygiene



- Vector control
- Education and awareness
- Isolation/quarantine
- Treatment and prophylaxis

Question 2) Explain the terms Endemic, Epidemic and Pandemic, giving examples.

- ***Endemic***: Constant presence of a disease in a population (e.g., Malaria in Nigeria)
- ***Epidemic***: Sudden increase in disease cases (e.g., Cholera outbreak in a community)
- ***Pandemic***: Global spread of a disease (e.g., COVID-19, Influenza A/H1N1)

Question 3) Define and distinguish between Incidence and Prevalence. Explain their importance in epidemiology with examples.

Definitions

- ***Incidence***: Number of new cases in a population over a period
- ***Prevalence***: Total number of cases (new and existing) in a population

Importance

- Incidence helps identify outbreak sources and transmission patterns
- Prevalence informs resource allocation, planning, and evaluation of interventions

Examples

- Incidence: 100 new HIV cases in a year
- Prevalence: 1000 HIV cases in a community

Question 4) Describe the measures used in Controlling Communicable Diseases at Community Level



- Surveillance and reporting
- Contact tracing
- Vaccination campaigns
- Sanitation and hygiene promotion
- Vector control measures
- Health education and awareness
- Treatment and prophylaxis

Question 5) Write Short notes on the following:

A) Epidemiological Triangle

The epidemiological triangle consists of:

- Agent (pathogen)
- Host (human)
- Environment (external factors)

These three components interact to cause disease.

B) Vehicle-borne Transmission

Disease transmission through contaminated food, water, or other vehicles (e.g., Cholera, Typhoid).

C) Point Prevalence and Period Prevalence

- *Point Prevalence*: Cases at a specific point in time
- *Period Prevalence*: Cases over a defined period (e.g., annual prevalence)

